WHAT IS CLAIMED IS:

1. A roller for winding of a material web thereon, said roller having two roller ends and a mid-roller area, said roller having a maximum winding diameter associated therewith, said roller comprising:

a base body;

at least one resilient member, said at least one resilient member being at least one of a resilient layer applied to at least sections of said body and at least one resilient element positioned on said base body, said at least one resilient member being positioned and configured so as to make said roller radially more resilient near each of said roller ends than in said mid-roller area in order to at least partially compensate for a deflection of said base body at the maximum winding diameter; and

a circumferential surface positioned over said base body, said circumferential surface contacting the material web, said circumferential surface being one of integral with and separate from said at least one resilient member.

2. The roller of claim 1, wherein said material web is a paper web.

3. The roller of claim 1, wherein said roller has a roller axis, said roller and said roller axis having a roller length, each said resilient member having a radial thickness, said radial thickness of each said resilient member varying over said roller length and said roller axis.

4. The roller of claim 1, wherein said roller has a roller length, each said resilient member having a radial rigidity, said radial rigidity of each said resilient member varying over said roller length.

5. The roller of claim 1, further comprising at least one rigid support point provided on said base body in said mid-roller area, said at least one rigid support point being surrounded by

said circumferential surface, said circumferential surface being radially less resilient in a vicinity of each said rigid support point than near said two roller ends.

6. The roller of claim 5, wherein said at least one rigid support point comprises a plurality of axially-distanced rigid support points.

7. The roller of claim 5, wherein at least one said rigid support point at least in part constitutes a portion of said base body.

8. The roller of claim 1, wherein said circumferential surface comprises a resilient tube surrounding said base body, said at least one resilient member being positioned radially between said base body and said resilient tube.

9. The roller of claim 8, wherein said resilient tube comprises a coating of one of rubber and another elastomeric material.

10. The roller of claim 1, wherein said at least one resilient member is a said resilient layer, said resilient layer having a constant radial rigidity over an axial length thereof, said resilient layer increasing in thickness toward each of said two roller ends, said resilient layer being applied on said base body at least near each of said two roller ends.

11. The roller of claim 10, wherein said thickness increases toward each of said two roller ends at least approximately in proportion to the deflection of said base body at the maximum winding thickness.

12. The roller of claim 10, wherein said base body is tapered toward each of said two roller ends at least approximately in proportion to said increasing thickness of said resilient layer.

13. The roller of claim 1, wherein said at least one resilient member is a said resilient layer, said resilient layer being a layer comprised of one of rubber and another elastomeric material.

14. The roller of claim 1, wherein said at least one resilient member is a said resilient layer, said resilient layer being formed of a non-homogeneous layer of at least one of a foamed material and a honeycomb structure.

15. The roller of claim 1, wherein said circumferential surface comprises a resilient tube surrounding said base body, said at least one resilient member being a said resilient layer, said resilient layer being provided near said two roller ends and being positioned between said base body and said resilient tube.

16. The roller of claim 15, wherein said resilient layer is a layer comprised of one of rubber and another elastomeric material, said resilient tube being comprised of a coating of one of rubber and another elastomeric material.

17. The roller of claim 1, wherein said at least one resilient member is a said resilient layer, said resilient layer having a constant thickness over an axial length thereof, said resilient layer increasing in radial resilience toward each of said two roller ends, said resilient layer being applied on said base body at least near each of said two roller ends.

18. The roller of claim 1, wherein said at least one resilient member is a plurality of said resilient elements, said roller having a roller axis, said resilient elements being axially distanced from one another at a respective axial spacing relative to said roller axis, each said resilient member having a respective resilience, at least one of said respective axial spacing being appropriately chosen and said respective resilience varying appropriately in order to render said circumferential surface comparatively more resilient near said two roller ends than in said mid-roller area.

19. The roller of claim 1, wherein said at least one resilient member is a plurality of said resilient elements, each said resilient element at least partially comprising one discrete spring element.

20. The roller of claim 19, wherein said each said resilient element at least partially comprises one annular body formed of one of rubber or another elastomeric material.

21. The roller of claim 19, wherein said each said resilient element at least partially comprises a spring packet, said base body having a body circumference, each said spring packet extending over said body circumference.

22. The roller of claim 1, wherein said at least one resilient member comprises at least one said resilient element, said at least one said resilient element being at least partially pre-stressed.

23. The roller of claim 1, wherein said base body is hollow.

24. The roller of claim 1, further including a plurality of tension anchors, said tension anchors being substantially symmetrically arranged, said at least one resilient member comprises a said resilient layer, said tension anchors being at least one of positioned on said base body in an area of said resilient layer applied at least on sections of said base body and at least on said resilient elements arranged on said body.

25. The roller of claim 24, wherein said base body has a body axis, said tension anchors being arranged one of parallel and approximately parallel to said body axis.

26. The roller of claim 24, wherein said tension anchors are arranged at least one of in a traverse diagonal manner and in a spiral manner relative to said base body.

27. The roller of claim 24, further comprising at least two outer walls, each said outer wall being associated a distal end portion of said resilient layer, said tension anchors being braced to a front of said roller via at least two said outer walls.

28. The roller of claim 27, wherein said tension anchors are braced in one of a diagonal manner and a rectangular manner.

29. The roller of claim 24, further comprising at least one spacer operatively positioned between said base body and said circumferential surface, said tension anchors being held in position in a radial direction of said roller by at least one said spacer.